Abstrakt

Charles University in Praque, Faculty of Pharmacy in Hradci Králové

Department: Pharmaceutical Chemistry and Drug Control

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Name of Degree Paper: Evaluation of zolpidem tartrate using HPLC

In the diploma thesis, there was optimazed the method of separation of zolpidem tartrate and its impurity A. There was tested the influence of the composition of the mobile phase, molarity of phosphate buffer, its pH and the temperature on the column. The optimal conditions of the separation were determined – methanol:acetonitril: 0,06 mol/l phosphate buffer pH 4 (20:15:65), the temperature on the column 30°C, the flow rate of the mobile phase was 1ml/min and the detection in the UV in the wavelength of 254 nm. Afterwards, the method was used for rating of stability tests in these load conditions – alkaline environment, increased temperature, oxidative environment and daylight. The decrease of the concentration of effective substance of zolpidem tartrate in the given environment and time was observed as well as the potential development of the destructive products of the effective substance.